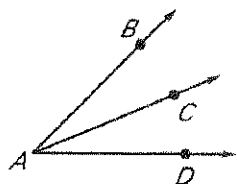


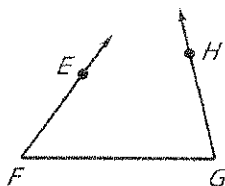
Directions: Failure to show all work and write in complete sentence will result in LaSalle!

Tell whether the indicated angles are adjacent.

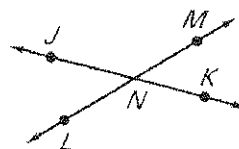
1. $\angle BAC$ and $\angle CAD$



2. $\angle EFG$ and $\angle HGF$

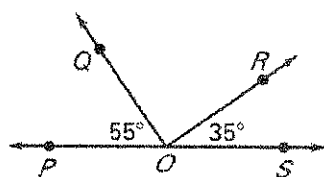


3. $\angle JNM$ and $\angle LNK$

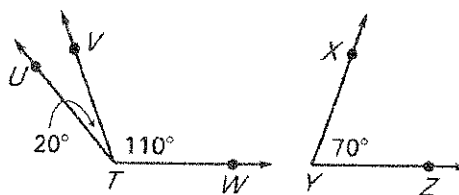


Name a pair of complementary angles and a pair of supplementary angles.

4.



5.



$\angle 1$ and $\angle 2$ are complementary angles. Given the measure of $\angle 1$, find $m\angle 2$.

6. $m\angle 1 = 52^\circ$

7. $m\angle 1 = 76^\circ$

8. $m\angle 1 = 19^\circ$

9. $m\angle 1 = 63^\circ$

$\angle 1$ and $\angle 2$ are supplementary angles. Given the measure of $\angle 1$, find $m\angle 2$.

10. $m\angle 1 = 147^\circ$

11. $m\angle 1 = 94^\circ$

12. $m\angle 1 = 38^\circ$

13. $m\angle 1 = 121^\circ$

In Exercises 8-15, use the diagram. Tell whether the angles are vertical angles, a linear pair, or neither.

8. $\angle 1$ and $\angle 2$

9. $\angle 1$ and $\angle 3$

10. $\angle 2$ and $\angle 4$

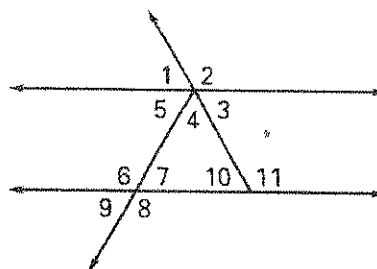
11. $\angle 4$ and $\angle 5$

12. $\angle 6$ and $\angle 8$

13. $\angle 8$ and $\angle 9$

14. $\angle 7$ and $\angle 10$

15. $\angle 10$ and $\angle 11$



Roof trusses can have several different layouts. The diagram below shows one type of roof truss made out of beams of wood. Use the diagram to identify two different examples of the indicated type of angle pair. In the diagram, $\angle HBC$ and $\angle BCE$ are right angles.

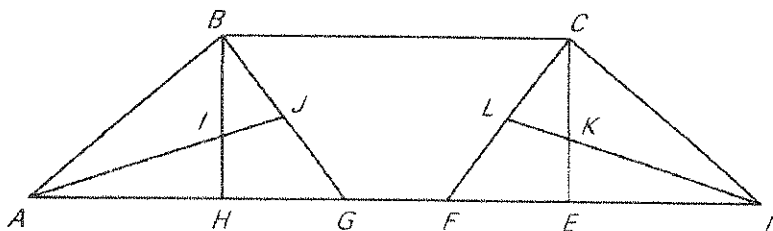
33. Supplementary angles

34. Complementary angles

35. Vertical angles

36. Linear pair angles

37. Adjacent angles



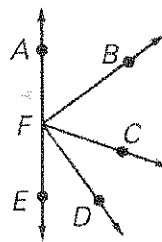
Use a protractor to find the measure of the given angle. Then classify the angle as *acute*, *obtuse*, *right*, or *straight*.

1. $\angle AFB$

2. $\angle BFD$

3. $\angle AFC$

4. $\angle AFE$



5) For any real number x , the equation $|x + 5| = 10$ can be translated as "the distance between x and -5 is 10." How far apart are the two possible values for x ?

6) Which of the following identifies exactly those values of z that satisfy $|4z + 12| \geq 36$?

A. $z \geq 6$

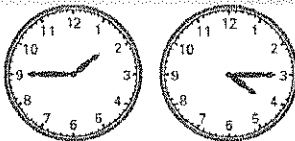
B. $-12 \leq z \leq 6$

C. $z \geq 6$ or $z \leq -12$

D. $-6 \leq z \leq 12$

E. $z \leq -6$ or $z \geq 12$

7) Tell whether the following angles are complementary, supplementary or neither.



8) In the standard (x, y) coordinate plane, how many units separate the points $(8, -1)$ and $(1, 5)$?

A. 13

B. $\sqrt{13}$

C. $\sqrt{74}$

D. $\sqrt{85}$

E. $\sqrt{97}$

9) In the standard (x, y) coordinate plane, point A has coordinates $(-9, -15)$, point F has coordinates $(3, 5)$, and point L is the origin. What is the midpoint of the line segment LF?

A. $(-6, -10)$

B. $(-3, -5)$

C. $\left(-\frac{9}{2}, -\frac{15}{2}\right)$

D. $(0, 0)$

E. $\left(\frac{3}{2}, \frac{5}{2}\right)$

10) A new operation, \diamond , is defined on pairs of ordered pairs of integers as follows: $(a, b) \diamond (c, d) = \frac{ac + bd}{ab - cd}$. What is the value of $(2, 1) \diamond (4, 6)$?

A. $-\frac{7}{11}$

B. $-\frac{7}{4}$

C. $\frac{7}{4}$

D. 7

E.